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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gil G. DUDKIEWICZ et al.

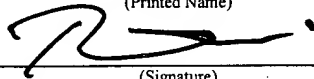
Title: SYSTEM AND METHOD FOR PROVIDING TIMING DATA FOR PROGRAMMING EVENTS

Appl. No.: 09/992,882

Filing Date: 16 November 2001

Examiner: J. SALCE

Art Unit: 2623

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APPEAL BRIEF **37 CFR 41.37**

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Sir:

Applicants submit this appeal brief in the patent application identified above. The filing of this appeal brief is dated from the October 31, 2006 mailing date of the Notification of Non-Compliant Appeal Brief.

I. REAL PARTY IN INTEREST

The real party in interest is meeVee, Inc., formerly known as MyDTV, Inc.

II. RELATED APPEALS AND INTERFERENCES

An appeal is pending in Application Ser. No. 09/793,357, from which the present application claims priority. There has been no decision in that appeal. The claims of that application have some features in common with those of the present application. The rejections in that application are based on different prior art than the rejections appealed here.

III. STATUS OF CLAIMS

Claims 1-2, 5-14, 17-24, 50-51, 54-62 and 65-71 are rejected. All rejections of all claims are appealed.

IV. STATUS OF AMENDMENTS

There have been no amendments subsequent to the rejection that is appealed.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The application has four independent claims (1, 13, 50 and 61). The following sections provide a description of the subject matter of the independent claims, and map each independent claim to the specification and drawings. All independent claims share important features that distinguish them from the prior art, and will be argued together.

A. Concise description of the subject matter of claim 1

Claim 1 is directed to a method that produces closed caption data for a television program that contains timing data corresponding to the beginnings of individual “segments” within the television program (*e.g.*, individual stories in a news program). The method involves obtaining script data and “rundown data” for the television program, processing the script data and rundown data to identify individual segments of the television program, determining an identifier for each segment, creating closed caption data for the television program that includes text from the script data and identifiers placed at locations corresponding to the beginnings of segments, and transmitting the closed caption data concurrently with the television program. Such timing data is useful, for example, to provide a program guide that lists individual segments of a program and their times, or to enable automatic recording of individual program segments.

This appeal involves two important features of claim 1: “rundown data” and “segments.”

1. Rundown data

The application uses the term “rundown data” to describe data having a particular type of information content. In the field of television and video production, a “rundown” is a list that specifies the individual pieces that make up a program. An example of a rundown is shown in Figure 4 of the application:

// PG	Talent	SLUG	TM	TN	Shot	Video	Total	Out cue	Back Time
125	TERROR	INTRO TERROR			2-shot	On Set	2:23	58:45 (:15)	0:02:26a
134	WORKING MOMS	S/D WORKING MOMS			2-shot	On Set	0:25	58:45 (:15)	0:02:54a
155	SHUTTLE	SHUTTLE			2-shot	On Set	0:26	58:45 (:15)	0:03:33a
22	WEATHER	WEATHER			2-shot	On Set	2:43	58:45 (:15)	0:06:27a
161	HOMETOWN HERO	HOMETOWN HERO			2-shot	On Set	0:51	58:45 (:15)	0:07:21a
164	SURPLUS	SURPLUS			2-shot	On Set	0:17	58:45 (:15)	0:07:41a
160	CRANES	CRANES			2-shot	On Set	0:22	58:45 (:15)	0:08:06a
132	SC LIVE WAGE	S/D SC LIVE WAGE			2-shot	On Set	0:23	58:45 (:15)	0:08:32a
135	LOTTO WINNERS	LOTTO WINNERS			2-shot	On Set	0:53	58:45 (:15)	0:09:26a

⋮

Figure 4

Paragraph [0062] of the application as filed states that the rundown of Figure 4 “provides a duration and ending time of individual segments within a news broadcast.”

2. Segments

The term “segments” is defined in paragraph [0055] of the application as filed, as follows:

For purposes of this description, a program comprises one or more “program segments” that pertain to different subjects and therefore can stand on their own as complete or individual viewing experiences. Examples of programs that typically consist of a single programming segment are movies, sit-coms, and sporting events. Examples of programs that are typically comprised of multiple program segments are news broadcasts, news magazine shows that present multiple feature stories, sports highlight shows, music video shows, informational shows, home shopping shows, and variety shows.

B. Mapping of claim 1 to the specification and drawings

The features of claim 1 are found in the specification and drawings as follows:

Claim Element	References to Specification and Drawings
1. A method in a television program production system comprising:	<u>Method in a television program production system</u> : par. 123.
obtaining script data and rundown data for a television program prior to broadcast of the television program;	<u>obtain script and rundown data</u> : par. 55-58; par. 60-61; par. 123.
processing the script data and the rundown data to define individual segments of the television program prior to broadcast of the program;	<u>segments</u> : par. 51. <u>processing to define individual segments</u> : par. 60-61; par. 123.
determining identifiers for each of the segments of the television program;	<u>determining identifiers for segments</u> : par 120; par. 123.

creating closed caption data for the television program from the script data, the closed caption data comprising text data corresponding to said script data, and timing data provided at locations corresponding to beginnings of each of the individual segments of the television program, the timing data that corresponds to a segment comprising an identifier of the corresponding segment; and	<u>closed caption data comprising text data and timing data: Fig. 20</u> <u>creating closed caption data: par 120-123.</u>
transmitting the closed caption data including the timing data to receivers of the television program concurrently with broadcasting of the television program.	<u>transmitting closed caption data with the program: par. 119; par. 123.</u>

C. Concise description of the subject matter of claim 13

Claim 13 describes a program-controlled device that is described in terms of the processing performed to create closed caption data. This processing comprises the same tasks as recited in claim 1.

D. Mapping of claim 13 to the specification and drawings

The features of claim 13 are found in the specification and drawings as follows:

Claim Element	References to Specification and Drawings
13. A program-controlled device for producing a television program, the device comprising a computer readable medium having stored therein programming instructions to cause the device to perform processing comprising:	<u>Program controlled device, medium, programming instructions: Fig. 1 (18); par. 57; Fig. 21 (246); par. 125.</u>
obtaining script data and rundown data for a television program prior to broadcast of the television program;	<u>Perform processing: par. 123.</u> <u>obtain script and rundown data: par. 55-58; par. 60-61; par. 123.</u>
processing the script data and the rundown data to define individual segments of the television program prior to broadcast of the program;	<u>segments: par. 51.</u> <u>processing to define individual segments: par. 60-61; par. 123.</u>
determining identifiers for each of the segments of the television program; and	<u>determining identifiers for segments: par 120; par. 123.</u>

creating closed caption data for the television program from the script data, the closed caption data comprising text data corresponding to said script data, and timing data provided at locations corresponding to beginnings of each of the individual segments of the television program, the timing data that corresponds to a segment comprising an identifier of the corresponding segment; and	<u>closed caption data comprising text data and timing data: Fig. 20</u> <u>creating closed caption data: par 120-123.</u>
transmitting the closed caption data including the timing data to receivers of the television program concurrently with broadcasting of the television program.	<u>transmitting closed caption data with the program: par. 119; par. 123.</u>

E. Concise description of the subject matter of claim 50

Claim 50 is directed to a method that identifies individual “segments” of a television program (*e.g.*, individual stories in a news program) and inserts identifiers of those segments into the broadcast video signal. The method involves obtaining rundown data for the television program, processing the rundown data to identify individual segments of the television program, determining an identifier for each segment, and broadcasting a video signal that includes timing data comprising the identifiers to indicate the beginnings of the segments. With the exception of broadcasting the video signal, the features of claim 50 are largely the same as features found in claim 1, and are therefore argued together.

F. Mapping of claim 50 to the specification and drawings

Claim Element	References to Specification and Drawings
50. A method in a television program production system comprising:	<u>Method in a television program production system: par. 124.</u>
obtaining rundown data for a television program prior to broadcast of the television program;	<u>obtain rundown data: par. 55-58; par. 60-61; par. 124.</u>
processing the rundown data to identify individual segments of the television program prior to broadcast of the television program;	<u>segments: par. 51.</u> <u>processing to define individual segments: par. 60-61; par. 124.</u>
determining identifiers for each of the segments of the television program; and	<u>determining identifiers for segments: par 120; par. 124.</u>

broadcasting a video signal representing the television program, the video signal comprising timing data indicating beginnings of the individual segments of the television program, the timing data comprising an identifier of the corresponding segment.	<u>broadcasting a video signal including timing data indicating individual segments</u> : par. 119; par. 124.
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G. Concise description of the subject matter of claim 61

Claim 61 describes a program-controlled device that is described in terms of the processing performed to create and transmit a video signal. This processing comprises the same tasks as recited in claim 50.

H. Mapping of claim 61 to the specification and drawings

The features of claim 61 are found in the specification and drawings as follows:

Claim Element	References to Specification and Drawings
61. A program-controlled device for producing a television program, the device comprising a computer readable medium having stored therein programming instructions to cause the device to perform processing comprising:	<u>Program controlled device, medium, programming instructions</u> : Fig. 1 (18); par. 57; Fig. 21 (246); par. 125.
obtaining rundown data for a television program prior to broadcast of the television program;	<u>obtain rundown data</u> : par. 55-58; par. 60-61; par. 124.
processing the rundown data to identify individual segments of the television program prior to broadcast of the television program;	<u>segments</u> : par. 51. <u>processing to define individual segments</u> : par. 60-61; par. 124.
determining identifiers for each of the segments of the television program; and	<u>determining identifiers for segments</u> : par 120; par. 124.
broadcasting a video signal representing the television program, the video signal comprising timing data indicating beginnings of the individual segments of the television program, the timing data comprising an identifier of the corresponding segment.	<u>broadcasting a video signal including timing data indicating individual segments</u> : par. 119; par. 124.

VI. GROUNDS OF THE REJECTION TO BE REVIEWED ON APPEAL

Applicants appeal the rejection of all claims as being obvious over the combination of Van Thong (U.S. 6,505,153) and Henmi (U.S. 5,390,027).

VII. ARGUMENT

Applicants present the following issues for consideration:

- 1) The absence from the prior art references of the “rundown data” required by the independent claims.
- 2) The absence from the prior art references of “processing ... rundown data to define individual segments of [a] television program” as required by the claims.
- 3) The absence from the prior art references of “closed caption data comprising ... timing data provided at locations corresponding to beginnings of each of the individual segments of the television program” as required by the independent claims.
- 4) The absence from the prior art references of “a video signal ... comprising timing data indicating beginnings of the individual segments of the television program” as required by the independent claims.
- 5) The absence from the prior art references of timing data for an individual segment of a program “comprising an identifier of the corresponding segment.”
- 6) The differences between the independent claims and the subject matter of the cited references, and the nonobviousness of the independent claims in view of those differences.
- 7) The differences between the dependent claims and the subject matter of the cited references, and the nonobviousness of the dependent claims in view of those differences.

Each issue is addressed individually after reviewing the prior art references.

A. Overview of the Prior Art References

1. Van Thong (U.S. 6,505,153)

Van Thong describes a system for producing time-aligned transcripts such as closed caption data or movie subtitles. The basic components of the system are illustrated in Figure 1:

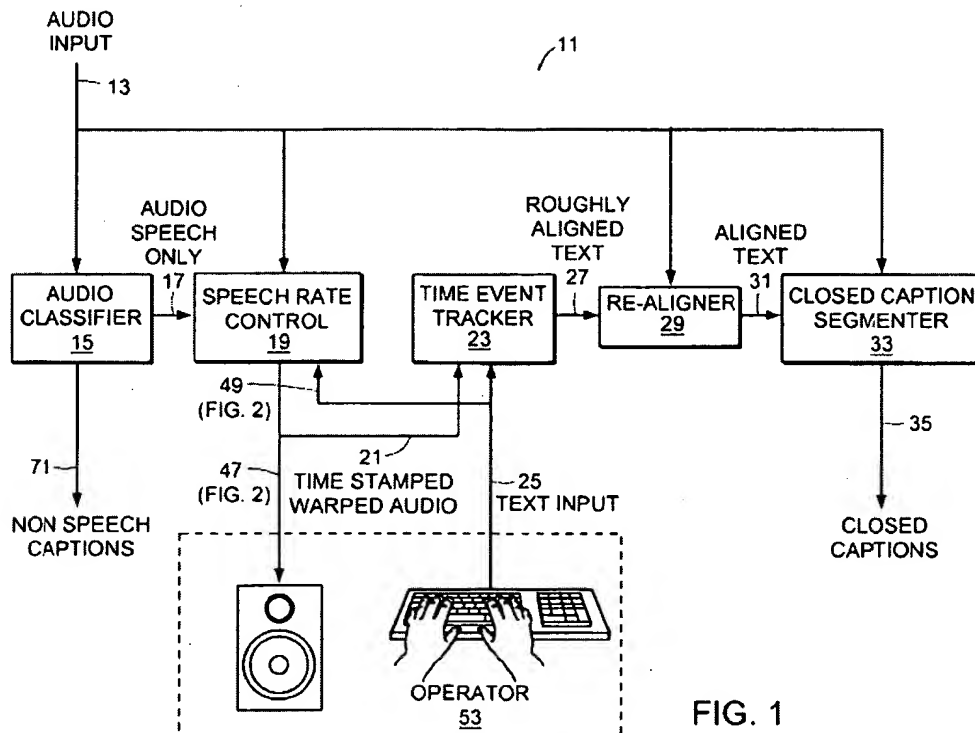
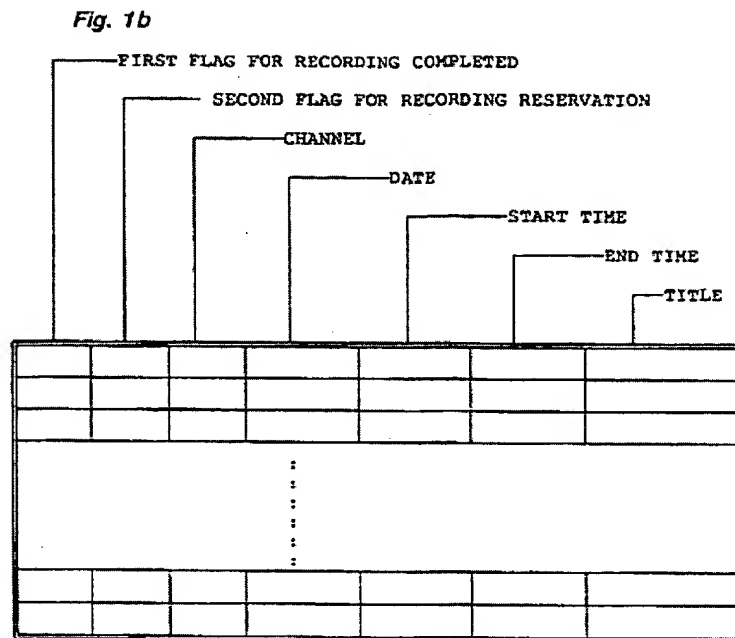


FIG. 1

The system is used by an operator who transcribes the script of a television program by listening to the audio portion of the program and typing words into a keyboard. The audio is pre-processed by a classifier 15 to isolate the portions of the audio that contain speech (col. 3, line 56 – col. 4, line 21). The speech is then output to the operator through a speech rate control module 19 that provides the speech at a constant rate and adds timestamps to the audio signal (col. 4, lines 22-48). A time event tracker module 23 time stamps the words as they are entered by the operator (“trigger events”), which allows for rough alignment of the individual words with the time stamped audio signal (col. 4, lines 49 – 67). A re-aligner module 29 then provides precise alignment between the audio and the text using speech recognition processing to determine where individual words in the audio signal begin (col. 5, lines 1-34). A closed caption segmenter 33 then selects groups of words that will be displayed together as a single line of closed caption text (col. 5, lines 35-46).

2. Henmi (U.S. 5,390,027)

Henmi describes a control system for a VCR that performs recording operations based on program information received in a television broadcast signal. The program information is stored in a memory that is configured as shown in Figure 1b, and includes the start and end times of programs:



B. Issues for Consideration

1. The absence from the prior art references of “rundown data.”

This limitation is present in all independent claims.

The rejection equates rundown data with the time-stamped audio signal (21) employed in Van Thong, citing col. 4, lines 50-52. Van Thong’s time-stamped audio 21, however, is simply an audio data stream that has a time reference added to it so that time stamped words typed by the operator can be associated with locations in the audio signal. *See* Van Thong col. 3, lines 25-43; col. 4, lines 22-64. In contrast, the term “rundown data” as used in the present application does not refer to a simple time reference associated with an audio signal, but instead refers to data that describes the times when particular events occur within a television program. It is well established that a claim interpretation is not correct if it is unreasonable when considered in light of the use of that term in the specification. In the present case, a person of ordinary skill in the art could not reasonably consider the “rundown data” of the claims to refer to Van Thong’s audio timestamps in view of the illustration and examples provided in the application.

In responding to applicants’ arguments regarding this distinction, the examiner has argued that, based on the description provided in applicants’ specification:

“[R]undown data represents the timing (as well as many other types of data) of a scene when spoken words in a television program will occur. Van Thong teaches

the exact same type of data in the form of audio timing data. Note Column 3, lines 25-32 for the module that creates the audio timing data 21 according to an actor in a television program speaking and column 4, lines 35-39 for the device that accepts the rundown data (audio timing data 21) and aligns the text data accordingly. Therefore, the audio timing data 21 clearly represents 'rundown data' as broadly defined by Applicant's specification." (Official Action p. 2-3).

The assertion that Van Thong's timestamped audio data is "exact same type of data" as the rundown data of the present application is not supported by the portions of Van Thong cited in support.

The cited passage at col. 3, lines 25-32 states:

The next module, the speech rate-control module 19, controls the rate of speech depending on how fast the text is spoken and/or how fast the operator 53 types. This module ensures that the spoken text remains understandable by maintaining a constant pitch. The audio produced 21 is time-stamped since a time dependent transformation has been applied to the audio samples.

This passage merely states that timestamps have been added to an audio signal by a speech-rate control module. The assertion that the speech-rate control module "creates the audio timing data 21 according to an actor in a television program speaking" is not supported by this passage or anything else in Van Thong. Nothing in Van Thong suggests that the timestamps have any relationship to the particular content of the audio signal. Rather, in later processing, it is necessary to perform speech recognition to achieve alignment of the text with words in the audio signal, indicating that the timestamps are simply time markers with no relation to the specific content of the audio signal. More fundamentally, rundown data provides information about events occurring within a television program or video. Van Thong's timestamps clearly do not.

Similarly, the cited passage at col. 4, lines 35-39 states:

A speech-playback-rate adjustment unit 43 uses the computed speech rate estimate 39 to control the playback rate of subject audio speech 17. Speech-playback-rate adjustment unit 43 controls the playback rate to match a desired target rate 37 as output/determined by target rate calculation unit 45.

This portion of Van Thong simply states that the playback speed of the audio is controlled to match a desired rate. In the sentence following the cited passage, it is stated that the rate may be a predefined value or may match the operator's typing speed. This has nothing to do with rundown data. Van Thong does not teach the rundown data required by the claims.

2. The absence from the prior art references of “processing ... rundown data to define individual segments of [a] television program”

This limitation is present in all independent claims.

The rejection cites Van Thong as defining individual segments of a television program, referring to col. 4, lines 52-54. This argument misconstrues the use of the term “segments” in the present application and claims. The cited portion of Van Thong describes linking the individual words typed by an operator to the time stamped audio stream itself, as follows:

“Time Event Tracker Module 23

This module 23 automatically links operator text (transcription) input 25 with the time-stamped audio stream 21 output from speech rate control 19. This linking results in a rough alignment 27 between the transcript text and the original audio 13 or video recording.”

There is no relationship between this passage and the determination of segments of a television program from rundown data as required by the claims. It is noted that Van Thong does use the term segments throughout his disclosure, but not in the manner of the present application. At col. 3, lines 17-24 and at col. 3, line 56 – col. 4, line 15, Van Thong describes an “audio classifier module 15” that “segments or otherwise sorts the audio input 13 into working parts that contain spoken words.” Van Thong explains that the audio classifier module 15 as follows:

“Before playing the audio input 13 to the operator 53, the audio classifier 15 segments or otherwise sorts the audio input 13 into working parts that contain spoken words. The audio classifier 15 also identifies parts that contain other sounds of interest (like a barking dog, music inserts or a train passing by) for the purposes of non-speech closed captioning 71. Thus audio classifier 15 determines and separates the audio portions containing spoken words and the audio portions containing non-speech sounds needing transcribing. Closed captions for the latter are produced at 71 while closed captions for the spoken words/speech audio are produced by the rest of system 11. In summary, module 15 enables the operator 53 to concentrate only on the spoken word parts that need to be transcribed.” (Col. 3, line 57 – col. 4, line 3).

In other words, Van Thong identifies portions of the audio track that contain speech or other sounds to be transcribed. Although those portions are referred to as segments, the segments are not separate parts of a television program that stand on their own as individual viewing experiences.

Van Thong later refers to the operation of a “segmenter” at col. 5-6, as follows:

“The closed caption segmenter module 33 receives as input the stream 31 of aligned text and the original audio track 13, and finds appropriate break points (silence, breathing, etc.) to segment the text into desired closed captions. Thus the segmenter 33 effectively automates the restructuring and reformatting of the transcription text into sentences or phrases appropriate for captioning. The segmenter module 33 preferably uses three criteria to find these break points: length of inter-word boundaries; changes in acoustic conditions and natural language constraints.” (Col. 5, lines 36-45).

In other words, the segmenter analyzes the audio text and decides how to group it into lines for display as closed caption text. This use of “segment” again differs from that of the present application.

In view of the definition of “segments” provided in the present application, a person of ordinary skill in the art could not reasonably conclude that Van Thong uses the term segments in the same manner as the present application and claims. Van Thong’s segments have nothing to do with the individual segments of a television program that are defined by processing rundown data, as required by the present claims.

3. The absence from the prior art references of “closed caption data comprising ... timing data provided at locations corresponding to beginnings of each of the individual segments of the television program.”

This limitation is present in independent claims 1 and 13.

The rejection asserts that Van Thong teaches closed caption data that contains timing data provided at locations corresponding to the beginnings of individual segments of a television program, citing col. 5, lines 36-39, col. 6, lines 4-52, and col. 5, lines 48-51. The cited portions do not support this assertion. The specific assertions and cited portions are as follows:

Assertion	Cited Portion
“Van Thong also discloses creating closed caption data for the television program from the script data (see Column 5, Lines 36-39) ...”	“The closed caption segmenter module 33 receives as input the stream 31 of aligned text and the original audio track 13, and finds appropriate break points (silence, breathing, etc.) to segment the text into desired closed captions.”

Assertion	Cited Portion
<p>“the closed caption data comprising text data corresponding to beginnings of each of the individual segments of the television program (see Column 6, Lines 4-52) ...”</p>	<p>“At a beginning step 101, segmenter 33 receives time aligned audio 31 and original audio 13. At step 103 segmenter 33 analyzes time aligned audio 31 and in particular reads time stamps from one word to another in time aligned audio 31. ...</p> <p>“From the original audio 13, segmenter 33 detects pauses acoustically at step 105. ...</p> <p>“Of the detected pauses from steps 103 and 105, segmenter 33 may find common pauses (at the same time marks). These have a greater possibility, than the other detected pauses, of indicating the end of a sentence. To further verify validity of this assumption (that the pause is at the end of a sentence), segmenter 33 applies (at step 107) natural language rules to the words surrounding the pause. If the preceding word is an article such as "a" or "the", then the pause is not at the end of a sentence</p> <p>“Step 107 having defined the end of sentences (from the pauses of steps 103 and 105), segmenter 33 forms groups or units of words between such pauses/ends of sentences. These word groupings are effectively sentences and step 109 thus provides punctuation, capitalization and other sentence formatting and visual structuring.</p> <p>“The last step 111, provides the formed sentences in segments appropriate for closed captions according to the time stamps of time aligned audio 31 and the corresponding time marks of the playback of original audio 13. ...</p>
<p>“the timing data that corresponds to a segments (<i>sic</i>) comprising an identifier of the corresponding segment (see Column 5, Lines 48-51).”</p>	<p>“With reference to FIG. 4A, the output 31 of the realigner module 29 (FIG. 3) is time-stamped text. This timing information is useful to the segmentation process since the length of pauses between words gives an indication of where sentence breaks might be.”</p>

The cited portions of Van Thong describe the operation of Van Thong’s segmenter, which determines individual sentences of text and then breaks the sentences into groups for display together in a single line of closed caption text. As discussed above, this does not equate to the determination of segments as used in the present application and claims. Further, Van Thong does provide timing data in the closed caption data at locations that correspond to the beginning of such segments, let alone at the beginning of “segments” as used in the present application.

4. **The absence from the prior art references of “a video signal ... comprising timing data indicating beginnings of the individual segments of the television program.”**

This limitation is present in independent claims 50 and 61.

The rejection of claims 50 and 61 refers back to the rejection of claim 1. Therefore it is assumed that this feature of claims 50 and 61 is rejected for the same reasons as applied to the closed caption data discussed above in section 3. Applicants again believe that the cited art is not related to the feature for which it is cited.

5. **The absence from the prior art references of timing data for an individual segment of a program “comprising an identifier of the corresponding segment.”**

This limitation is present in all independent claims.

The rejection of all independent claims cites the portions of Van Thong addressed above in section 3 as teaching this limitation. As seen in the quoted passages, Van Thong provides no identifier of the segments (i.e., sentences and sentence fragments) that it determines, let alone identifiers of segments as used in the present application.

6. **The differences between the claims and the subject matter of the cited references, and the nonobviousness of the claims in view of those differences.**

According to the test set forth in *Graham v. Deere*, a claim may only be found obvious where, after accurately identifying the differences between the prior art and the claimed subject matter, those differences are shown to be such that the claimed subject matter would be still be obvious to a person of ordinary skill in the art. The Federal Circuit has adopted the standard that there must be evidence of some teaching or suggestion in the prior art, the general knowledge in the field, or the problem to be solved, that would lead one to the claimed subject matter from the cited prior art, despite the acknowledged differences.

In the present case, there numerous significant differences between the prior art and the claimed subject matter, and it is not reasonable to assert that the claimed subject matter would have been obvious given the nature of those differences. The prior art consists of:

Van Thong: a system that plays an audio signal, aligns the timestamps of text typed by a transcriber with timestamps assigned to the audio itself, refines the alignment of the text to the audio to provide more exact correspondence between audio words and their text, and then groups the words into lines of closed caption text to be displayed.

Henmi: a system that uses television program start and stop times, provided in a broadcast signal, to control the recording operations of a VCR.

The issue on appeal is whether the following would be obvious from those references:

Claimed subject matter: obtaining rundown data for a television program; processing the rundown data to identify individual program segments within the television program; determining identifiers for each of the segments of the program; and then either 1) creating and transmitting closed caption data that contains timing data, including segment identifiers, at locations corresponding to the beginnings of the program segments (independent claims 1 and 11 and their dependent claims), or 2) broadcasting a video signal that contains timing data, including segment identifiers, for each of the program segments.

The preceding sections showed that there are significant differences between the claimed subject matter and the prior art:

- The prior art does not involve rundown data. Rundown data provides information about events that occur during a television program or video. These events concern the subject matter content of the program or video itself. At most, the prior art involves timestamps applied to an audio signal that have no relationship to the subject matter content of the audio signal.
- The prior art does not identify segments of a television program. As described in the application, segments of a television program pertain to different subjects and therefore can stand on their own as complete or individual viewing experiences. At most, the prior art involves isolating the portions of an audio signal that contain speech, and grouping individual words for display together as lines of closed caption text.
- The prior art does not provide identifiers for individual segments of a television program.
- The prior art does not provide timing data for individual segments of a television program into either closed caption data or a broadcast signal.

In view of these differences, there are simply no meaningful similarities between the claimed subject matter and the problems addressed by the prior art, the processing that the prior art performs, or the data that the prior art operates on. The rejection is unreasonable and should not be sustained.

7. The differences between the dependent claims and the subject matter of the cited references, and the nonobviousness of the dependent claims in view of those differences.

The dependent claims share the features of the independent claims, and the obviousness rejection of the dependent claims should not be sustained, for the same reasons as described above.

VIII. CONCLUSION

Applicant requests the Board to reverse all rejections for the reasons stated above.

Respectfully submitted,

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CLAIMS APPENDIX

1. (Previously Presented) A method in a television program production system comprising:
obtaining script data and rundown data for a television program prior to broadcast of the
television program;
processing the script data and the rundown data to define individual segments of the television
program prior to broadcast of the program;
determining identifiers for each of the segments of the television program;
creating closed caption data for the television program from the script data, the closed caption
data comprising text data corresponding to said script data, and timing data provided at
locations corresponding to beginnings of each of the individual segments of the television
program, the timing data that corresponds to a segment comprising an identifier of the
corresponding segment; and
transmitting the closed caption data including the timing data to receivers of the television
program concurrently with broadcasting of the television program.
2. (Previously Presented) The method claimed in claim 1, wherein said closed caption data
further comprises timing data provided at locations corresponding to ends of each
segment.
- 3-4. (Canceled)
5. (Previously Presented) The method claimed in claim 1, wherein the transmission of the closed
caption data is synchronized with transmission of the individual segments of the
television program.
6. (Previously Presented) The method claimed in claim 5, wherein the transmission of the closed
caption data is synchronized to the display of corresponding text by a teleprompter
system to a person who appears in the television program as a reader of the text.

7. (Previously Presented) The method claimed in claim 1, further comprising storing the television program and the closed caption data on a machine readable storage medium.
8. (Previously Presented) The method claimed in claim 1, wherein the timing data for a segment comprises an identifier associated with the segment and data indicating an amount of time by which the identifier precedes the beginning of the segment.
9. (Previously Presented) The method claimed in claim 1, wherein the timing data for a segment comprises an identifier associated with the segment that is provided in the closed caption data at a location separated from the beginning of the segment by a predetermined amount of time.
10. (Original) The method claimed in claim 1, wherein the timing data is encoded as hidden closed caption data.
11. (Original) The method claimed in claim 1, wherein said timing data is accompanied by a timing data marker.
12. (Original) The method claimed in claim 1, wherein said timing data is encrypted.
13. (Previously Presented) A program-controlled device for producing a television program, the device comprising a computer readable medium having stored therein programming instructions to cause the device to perform processing comprising:
obtaining script data and rundown data for a television program prior to broadcast of the television program;
processing the script data and the rundown data to define individual segments of the television program prior to broadcast of the program;
determining identifiers for each of the segments of the television program; and
creating closed caption data for the television program from the script data, the closed caption data comprising text data corresponding to said script data, and timing data provided at locations corresponding to beginnings of each of the individual segments of the television

program, the timing data that corresponds to a segment comprising an identifier of the corresponding segment; and
transmitting the closed caption data including the timing data to receivers of the television program concurrently with broadcasting of the television program.

14. (Previously Presented) The device claimed in claim 13, wherein said closed caption data further comprises timing data provided at locations corresponding to ends of each segment.

15-16. (Canceled)

17. (Previously Presented) The device claimed in claim 13, wherein the transmission of the closed caption data is synchronized with transmission of the individual segments of the television program.

18. (Previously Presented) The device claimed in claim 17, wherein the transmission of the closed caption data is synchronized to the display of corresponding text by a teleprompter system to a person who appears in the television program as a reader of the text.

19. (Previously Presented) The device claimed in claim 13, wherein the processing further comprises storing the television program and the closed caption data on a machine readable storage medium.

20. (Previously Presented) The device claimed in claim 13, wherein the timing data for a segment comprises an identifier associated with the segment and data indicating an amount of time by which the identifier precedes the beginning of the segment.

21. (Previously Presented) The device claimed in claim 13, wherein the timing data for a segment comprises an identifier associated with the segment that is provided in the closed caption data at a location separated from the beginning of the segment by a predetermined amount of time.

22. (Original) The device claimed in claim 13, wherein the timing data is encoded as hidden closed caption data.

23. (Original) The device claimed in claim 13, wherein said timing data is accompanied by a timing data marker.

24. (Original) The device claimed in claim 13, wherein said timing data is encrypted.

25-49. (Canceled)

50. (Previously Presented) A method in a television program production system comprising:
obtaining rundown data for a television program prior to broadcast of the television program;
processing the rundown data to identify individual segments of the television program prior to
broadcast of the television program;
determining identifiers for each of the segments of the television program; and
broadcasting a video signal representing the television program, the video signal comprising
timing data indicating beginnings of the individual segments of the television program,
the timing data comprising an identifier of the corresponding segment.

51. (Previously Presented) The method claimed in claim 50, wherein the timing data is provided
at locations in the video signal corresponding to the beginning of each corresponding
segment.

52-53. (Canceled)

54. (Original) The method claimed in claim 50, wherein said timing data is provided in vertical
blanking intervals of the video signal.

55. (Original) The method claimed in claim 50, wherein said timing data is provided in data
fields of a digital video signal.

56. (Original) The method claimed in claim 50, further comprising storing the video signal including the timing data on a machine readable storage medium.
57. (Previously Presented) The method claimed in claim 50, wherein the timing data for a segment comprises an identifier associated with the segment and data indicating an amount of time by which the identifier precedes the beginning of the segment.
58. (Previously Presented) The method claimed in claim 50, wherein the timing data for a segment comprises an identifier associated with the segment that is inserted into the video signal at a location separated from the beginning of the segment by a predetermined amount of time.
59. (Original) The method claimed in claim 50, wherein said timing data is accompanied by a timing data marker.
60. (Original) The method claimed in claim 50, wherein said timing data is encrypted.
61. (Previously Presented) A program-controlled device for producing a television program, the device comprising a computer readable medium having stored therein programming instructions to cause the device to perform processing comprising:
obtaining rundown data for a television program prior to broadcast of the television program;
processing the rundown data to identify individual segments of the television program prior to broadcast of the television program;
determining identifiers for each of the segments of the television program; and
broadcasting a video signal representing the television program, the video signal comprising timing data indicating beginnings of the individual segments of the television program, the timing data comprising an identifier of the corresponding segment.

62. (Previously Presented) The device claimed in claim 61, wherein the timing data is provided at locations in the video signal corresponding to the beginning of each corresponding segment.

63-64. (Canceled)

65. (Original) The device claimed in claim 61, wherein said timing data is provided in vertical blanking intervals of the video signal.

66. (Original) The device claimed in claim 61, wherein said timing data is provided in data fields of a digital video signal.

67. (Original) The device claimed in claim 61, further comprising storing the video signal including the timing data on a machine readable storage medium.

68. (Previously Presented) The device claimed in claim 61, wherein the timing data for a segment comprises an identifier associated with the segment and data indicating an amount of time by which the identifier precedes the beginning of the segment.

69. (Previously Presented) The device claimed in claim 61, wherein the timing data for a segment comprises an identifier associated with the segment that is inserted into the video signal at a location separated from the beginning of the segment by a predetermined amount of time.

70. (Original) The device claimed in claim 61, wherein said timing data is accompanied by a timing data marker.

71. (Original) The device claimed in claim 61, wherein said timing data is encrypted.

EVIDENCE APPENDIX

Not applicable.

RELATED PROCEEDINGS APPENDIX

Not applicable.